

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-354903  
(43)Date of publication of application : 25.12.2001

(51)Int.Cl.

C09D183/04  
C09D183/02  
C09D183/14  
H01L 21/312

(21)Application number : 2000-360178  
(22)Date of filing : 27.11.2000

(71)Applicant : JSR CORP  
(72)Inventor : HAYASHI EIJI  
HASEGAWA KOICHI  
JO YOSHIHIDE

(30)Priority

Priority number : 2000108310 Priority date : 10.04.2000 Priority country : JP

(54) METHOD FOR MANUFACTURING COMPOSITION FOR FILM FORMATION, COMPOSITION FOR FILM FORMATION, METHOD FOR FORMING FILM AND SILICA-BASED FILM

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a method for manufacturing a composition for forming a film as an interlayer insulating film material for a semiconductor element, or the like, excellent in long-term preservation stability of a solution and capable of giving a silica-based film excellent in relative dielectric constant characteristics and crack resistance after PCT(Pressure Cooker Test).

SOLUTION: The manufacturing method of a composition for forming a film comprises hydrolyzing and condensing (A) at least one compound selected from the group consisting of compounds represented by general formula 1, 2 or 3 in the presence of (B) a basic compound, (C) water and (D) a first organic solvent and subsequently adding thereto (E) an acidic compound: the general formulae  $RaSi(OR1)4-a$ ... (1),  $Si(OR2)4$ ... (2),  $R3b(R4O)3-bSi-(R7)d-Si(OR5)3-cR6c$ ... (3), wherein R is hydrogen or fluorine atom or a monovalent organic group; R1-R6 are each a monovalent organic group; R7 is oxygen atom, a phenylene group or  $(CH2)n$ ; (a) is 1-2; (b) and (c) are each 0-2; (d) is 0 or 1; and (n) is 1-6.

## LEGAL STATUS

[Date of request for examination]

07.02.2003

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]